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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/018,876

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DNAG 230

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EXAMINER

BERGIN, JAMES S

ART UNIT

PAPER NUMBER

3641

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/07/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/018,876	HADLER ET AL.	
	Examiner	Art Unit	
	James S. Bergin	3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 47-68 and 84-88 is/are pending in the application.
- 4a) Of the above claim(s) 59-62 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 47-58, 63-68 and 84-88 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 59-62 are objected to because of the following informalities: claims 59-62 are drawn to non-elected embodiment and should now be labeled with the appropriate status identifier, (Withdrawn). Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 47 and 86 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a projectile comprising or consisting of a penetrating core arranged in front of the fragmenting core, with both the penetrating core and the fragmenting cores being completely surrounded by the projectile jacket lying entirely on the periphery of the projectile, wherein the rear of the penetrating core is in contact with the front of the fragmenting core, does not reasonably provide enablement for a projectile that is not completely surrounded by the projectile jacket. Nor does it provide enablement for a projectile that is consistent with the claim 47 and 86 limitation, limitation "wherein the rear of the penetrating core is in contact with the front of the penetrating core" (see the section on 112 2 paragraph that follows below). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. The specification makes it quite clear that the jacket covering the entire

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periphery of the projectile is a critical feature of this invention (see at least Fig. 1 and supporting sections of the specification), and without the jacket being so claimed, the claimed projectile, if made, could not be used as intended.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 47-58, 63-68 and 84-88 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 47 and 86, the limitation "wherein the rear of the penetrating core is in contact with the front of the penetrating core" is not understood. How can this arrangement be possible unless the penetrating core is circular? The specification has not disclosed such an arrangement. In claims 47 and 86, line 7, the limitation, "the front and rear cores" lacks a proper antecedent basis, as the projectile has not been claimed as having a front core or a rear core.

In claims 48, 51, 53, 55 and 84, the limitation, "a midline" or "the midline", is indefinite because it is unclear what line or axis is being referred to. Is it the axial line running parallel to the projectile longitudinal axis or is it a line running transverse to the longitudinal axis at a midpoint between the front and rear ends of the projectile?

In claim 53, it is unclear whether the claimed "circular annular surface" is part of the fragmenting core or whether it is a surface of another element?

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In claims 55 and 84, it is unclear whether the "circular annular surface" is part of the rear of the penetrating core or whether it is a surface of another element?

In claim 84, the limitations, "soft" and "hard" are relative terms which render the claim indefinite because one of ordinary skill in the art would not be reasonably apprised of the scope of the invention of the claimed invention. Furthermore, in claim 84, the phrase in lines 8-11, "wherein the shape. . . are harmonized with the fragmentation characteristics required for the projectile. . . nature of the quarry," is **indefinite and vague** since it is unclear what is defined by said phrase and what would sufficiently "harmonize" with "fragmentation characteristics." Similarly, claim 58 recites, "a shape matched to required flight characteristics," however, this phrase is indefinite since the required flight characteristics are relative to the application, and it is unclear how such a requirement would affect the structure of the projectile.

In claim 85, the limitation, "solid" is a relative terms which render the claim indefinite because one of ordinary skill in the art would not be reasonably apprised of the scope of the invention of the claimed invention.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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7. Claims 47-54, 56-58, 63, 64 and 86-88 are rejected under 35 U.S.C. 102(b) as being anticipated by Pejsa (US 4,776,279).

The following rejection is made in as much as the claims can be understood in the light of the 112 1<sup>st</sup> and 112 2<sup>nd</sup> paragraph rejections outlined above.

Regarding claims 47-51 and 86-88 Pesja discloses the claimed projectile, as best understood, having a hard penetrating core 30 nested inside a centrally aligned, conical recess of soft core 12, and a jacket 14 completely surrounding both aforementioned cores.

Regarding claim 52, the cavity does not extend more than  $\frac{3}{4}$  of the length of the soft core 12.

Regarding claim 53 the front, circular edge of soft core 12 that contacts jacket 14, lies perpendicular to the mid-line of the projectile.

Regarding claim 54 said recess matches the shape of the rear of hard core 30.

Regarding claim 56, Pesja notes the hard core 30 may be made of a plastic material (col.4, Ins.40-48).

Regarding claim 57, Pesja shows a flat head tip in Figure 3.

Regarding claim 63, the tip of hard core 30 in Figures 1 and 2, is considered to be sharp.

Regarding claim 64, as best understood, crimps 22 are formed in the jacket 14.

8. Claims 47-54, 57, 58, 63, 65-66 and 86-88 are rejected under 35 U.S.C. 102(b) as being anticipated by Wood (US 1,134,797).

Wood discloses the claimed invention as best understood, more specifically an expanding projectile comprising a jacket 3, a fragmenting soft core 2, and a hard penetrating core 4 disposed in front of said soft core 2 as seen in the direction of trajectory. The soft core 2 and penetrating core 4 are enclosed completely by said jacket 3.

The nose of the projectile is considered to be edge 5 of penetrating core 4, wherein said nose has a recess defined as the hollow conical interior, as best viewed in Figure 4, of penetrating core 4 and the tip angle is considered to be within the range of 30-90 degrees.

Regarding claim 52, a cavity, defined as the volume filled by rear tip 7 adjoins said recess and extends no more than 75% of the length of the soft core 2.

Regarding claims 53 and 55, edge 5 is a circular annular surface and is perpendicular to the midline of the projectile.

Regarding claim 57, Wood shows the nose 5 to be a flat head in Figures 3-4.

Regarding claim 58, the tip of the projectile is considered match required flight characteristic to generally conform to the shape of the rear of the projectile and vice versa.

Regarding claim 63, the tip of the projectile in Figure 1 is considered to have a sharp edge.

Regarding claims 65 and 66, the thickness of jacket wall 3, as seen in at least Figures 1 and 2, decreases in thickness from the rear toward the forward front edge.

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9. Claims 47-52, 54, 56, 58, 63, 65, 66 and 85-88 are rejected under 35

U.S.C. 102(b) as being anticipated by Carter (US 5,621,186).

Carter discloses a projectile, as best viewed in Figure 5, comprising a soft core 10 made of lead, and a hard penetrating core defined as the plastic tip (col.3, Ins.18-20) set in the nose of soft core 10. A jacket 14 surrounds majority of the projectile and contacts a rear portion of the plastic hard-core tip. The recess in the nose of the projectile is conical and aligned along a mid-line recess of the projectile.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 67 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pesja as applied to claim 47 above, and further in view of Stone (US 6,691,623).

Pesja discloses the claimed invention having a penetrator core made of a plastic tip except the soft core is made of lead. Stone teaches the use of an alternative soft projectile material that is lead-free, and thus will not contaminate the environment surrounding the intended target. Lead can be a very dangerous and poisonous material to the environment and those in contact with said substance. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use



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Stone's lead-free material in order prevent the possibility of contaminating the environment.

Regarding claim 68 the lead-free material is made from at least, iron and zinc (Stone, col.2, lns.54-57)

### ***Allowable Subject Matter***

12. The indicated allowability of claim 84 is withdrawn in view of the 112 2<sup>nd</sup> paragraph rejections discussed above. Claim 55 was previously objected to but is now rejected under 112 2<sup>nd</sup>. Claim 55 also depends indirectly from claim 47 which has been rejected under 112 1<sup>st</sup> and 2<sup>nd</sup> paragraphs.

### ***Response to Arguments***

13. Applicant's arguments filed 11/30/2006 have been fully considered but they are not persuasive.

First regarding the Pesja rejection, applicant claims that Pesja does not disclose the invention as claimed because the projectile is not a "partial fragmentation" projectile, as it does not break apart like applicant's invention. The examiner respectfully disagrees and reminds applicant that the claim language is read with the broadest interpretation standard. Accordingly Pesja's projectile is considered to satisfy the metes and bounds of the claims, first because it is clear from at least Figure 3 that the projectile casing at point 34 breaks apart. Further, it is known that in addition to

mushrooming, expanding bullets tend to release splinters and fragments upon impact with the target.

Regarding the Wood rejection, Applicant contends a point similar to that argued with regard to Pesja and argues that Wood does not disclose a partial fragmentation projectile because the two cores do not separate from one another. The examiner disagrees and reminds applicant that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Finally regarding the Carter rejection, Applicant argues that plastic tip, as seen in Figure 5, cannot be the hard core as claimed, however, he gives no reason to support this contention. The examiner respectfully disagrees and maintains that the plastic tip as disclosed by Carter, satisfies the structural limitations as claimed in the present invention.

### ***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the attached PTO FORM 892.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Bergin whose telephone number is 571-272-

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6872. The examiner can normally be reached on Monday - Wednesday and Friday,  
8.30 - 5.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



James S. Bergin